

Michigan Department of Natural Resources & Environment
Wildlife Division Report No. 3508
February 2010

Printed by Authority of: P.A. 451 of 1994
Total Number of Copies Printed:25
Cost per Copy:\$1.61
Total Cost: \$40.25
Michigan Department of Natural Resources &
Environment

2008 BEAR HARVEST REPORT FOR THE RED OAK BEAR MANAGEMENT UNIT

Brian J. Frawley

ABSTRACT

A study area consisting of portions of Alcona, Alpena, Montmorency, and Oscoda counties (study area) represented 5% of the area of the Red Oak Bear Management Unit (BMU), yet about 22% of the black bears registered from the Red Oak BMU since 2000 were taken in the study area. A random sample of bear hunters was contacted after the 2008 hunting season to determine hunter participation, hunting methods, bear harvest, and hunter satisfaction among hunters in the Red Oak BMU. In 2008, an estimated 1,663 hunters spent nearly 8,000 days afield and harvested about 449 bears in the Red Oak BMU. About 27% of hunters harvested a bear. Hunter success and the effort required to harvest a bear did not differ significantly inside and outside the study area. Bear hunters in the study area more often hunted on private land only (75% versus 45%), and they more often harvested a bear on private land than hunters outside the study area (80% versus 45%). A slightly higher proportion of the bear hunters in the study area relied on bait to attract bears than hunters outside the study area (93% versus 86%). Fewer hunters inside the study area rated their hunting experience as poor or very poor than among hunters outside the study area (19% versus 29%). Hunters in the study area experienced less interference from hunters (all types of hunting) than among hunters outside the study area (23% versus 34%). Furthermore, fewer hunters in the study area experienced interference with another bear hunter than among hunters outside the study area (17% versus 27%). This information will assist in assessing whether the study area should be managed separately from the remainder of the Red Oak BMU.



A contribution of Federal Aid in Wildlife Restoration, Michigan Project W-147-R

Equal Rights for Natural Resource Users

The Michigan Department of Natural Resources and Environment provides equal opportunities for employment and access to Michigan's natural resources. Both State and Federal laws prohibit discrimination on the basis of race, color, national origin, religion, disability, age, sex, height, weight or marital status under the U.S. Civil Rights Acts of 1964 as amended, 1976 MI PA 453, 1976 MI PA 220, Title V of the Rehabilitation Act of 1973 as amended, and the 1990 Americans with Disabilities Act, as amended.

If you believe that you have been discriminated against in any program, activity, or facility, or if you desire additional information, please write:
Human Resources, Michigan Department of Natural Resources and Environment, PO Box 30473, Lansing MI 48909-7973, or
Michigan Department of Civil Rights, Cadillac Place, 3054 West Grand Blvd, Suite 3-600, Detroit, MI 48202, or
Division of Federal Assistance, U.S. Fish & Wildlife Service, 4401 North Fairfax Drive, Mail Stop MBSP-4020, Arlington, VA 22203.

For information or assistance on this publication, contact Michigan Department of Natural Resources and Environment, Wildlife Division, P.O. Box 30444, MI 48909.
This publication is available in alternative formats upon request.

INTRODUCTION

Beginning in 1990, the Michigan Department of Natural Resources and Environment (DNRE) created black bear (*Ursus americanus*) management units (Figure 1), including the Red Oak Bear Management Unit (BMU), and limited the number of bear hunting licenses issued for each unit. The DNRE annually sets license quotas for each management unit and through a preference point system allocates licenses among eligible applicants.

Since 2000, nearly 22% of the black bears registered from the Red Oak BMU have been taken in the study area consisting of portions of Alcona, Alpena, Montmorency, and Oscoda counties (Figure 2). In 2008, this study area represented 5% of the area of the Red Oak BMU. Thus, the study area has been contributing disproportionately to the harvest within the Red Oak BMU. Furthermore, the proportion of bears taken from the study area has generally increased since 1990 (Figure 3).

In 2008, bear could be hunted in the Red Oak BMU during September 19-25 and October 5-11. Firearms or archery equipment could be used to harvest a bear during September 19-25; however, bear could only be taken with archery equipment during October 5-11. Hunting licenses were valid on all land ownership types and allowed a hunter to take one bear of either sex, excluding cubs and female bears with cubs. Hunters could use bait throughout all hunting periods, but dogs could be used only during September 19-25 (i.e., prior to the archery-only season). All successful bear hunters were required to present their harvested bear at a registration station.

The DNRE and Natural Resources Commission have the authority and responsibility to protect and manage the wildlife resources of the state of Michigan. Harvest and opinion surveys are some of the management tools used by the DNRE to accomplish its statutory responsibility. Our objectives were to estimate hunter participation and success in (1) the Red Oak BMU, (2) inside the study area, and (3) outside the study area within the BMU. This information will be used to assess whether the study area should be managed separately from the remainder of the Red Oak BMU.

METHODS

Following the 2008 bear hunting season, a questionnaire (Appendix A) was mailed to 904 people that had purchased a bear hunting license valid for the Red Oak BMU (resident, senior, nonresident bear licenses, and comprehensive lifetime licenses). The people selected for the sample were bear hunting license buyers that had not been selected previously for the annual statewide bear harvest survey (Frawley 2009). Hunters reported whether they hunted bear during 2008, number of days spent afield, whether they harvested a bear, date of harvest, and their hunting methods. Hunters also reported whether other hunters (including bear hunters) caused interference during their hunt. In addition, hunters rated the status of the bear population compared to last year (i.e., more, same, fewer bear, or unknown). Successful hunters were asked to report harvest date, sex of the bear taken, and harvest method. All hunters were asked to rate their overall hunting experience.

Estimates were calculated using a simple random sampling design (Cochran 1977). The mean number of days required to harvest a bear was calculated using the number of bears registered by hunters at mandatory check stations as an auxiliary variate (ratio estimator).

A 95% confidence limit (CL) was calculated for each estimate. In theory, the CL can be added and subtracted from the estimate to calculate the 95% confidence interval. The confidence interval is a measure of the precision associated with the estimate and implies that the true value would be within this interval 95 times out of 100. Unfortunately, there are several other possible sources of error in surveys that are probably more serious than theoretical calculations of sampling error. They include failure of participants to provide answers (nonresponse bias), question wording, and question order. It is very difficult to measure these biases; thus, estimates were not adjusted for these possible biases.

Statistical tests are used routinely to determine the likelihood that the differences among estimates are larger than expected by chance alone. The overlap of 95% confidence intervals was used to determine whether estimates differed. Non-overlapping 95% confidence intervals was equivalent to stating that the difference between the means was larger than would be expected 995 out of 1,000 times, if the study had been repeated (Payton et al. 2003).

Questionnaires were mailed initially during mid-July 2009, and up to two follow-up questionnaires were mailed to nonrespondents. Although 904 people were sent the questionnaire, 11 surveys were undeliverable, resulting in an adjusted sample size of 893. Questionnaires were returned by 671 people, yielding a 75% adjusted response rate.

RESULTS

In 2008, 1,783 bear hunting licenses were purchased for the Red Oak BMU. Nearly $93 \pm 1\%$ (1,663 hunters) of the license buyers hunted bear (Table 1). These hunters spent 7,998 days afield ($\bar{x} = 4.8$ days/hunter) and harvested 449 bears. The average number of days required to harvest a bear in the Red Oak BMU was 17.8 days in 2008. These estimates were similar to previously reported estimates for the Red Oak BMU from the annual bear harvest survey (Table 2, Frawley 2009).

About $26 \pm 3\%$ of the bear hunters in the Red Oak BMU hunted within the study area (433 hunters, Table 1). These hunters spent 1,788 days afield ($\bar{x} = 4.1$ days/hunter) and harvested 122 bears. The average number of days required to harvest a bear in the study area was 14.6 days. An estimated $76 \pm 3\%$ of the bear hunters in the Red Oak BMU hunted outside the study area (1,265 hunters). These hunters spent 6,210 days afield ($\bar{x} = 4.9$ days/hunter) and harvested 327 bears. The average number of days required to harvest a bear outside the study area was 19.0 days, which was not significantly different from the effort required in the study area.

About 52% of the bear hunters in the Red Oak BMU hunted on private lands only, 31% hunted on public lands only, and 15% hunted on both private and public lands (Table 3). Among bear hunters hunting within the study area, 75% hunted on private lands only, 10% hunted on public lands only, and 11% hunted on both private and public lands. In contrast, 45% of hunters

pursuing bears outside the study area hunted on private lands only, 39% hunted on public lands only, and 16% hunted on both private and public lands. The proportion of hunters using private lands was significantly greater among hunters in the study area than for hunters outside the study area.

Bear hunters in the Red Oak BMU spent 4,060 days afield on private land, 2,761 days hunting on public land only, and 1,108 days hunting on both private and public lands (Table 4). Bear hunters active in the study area spent 1,350 days afield on private land, 191 days hunting on public land only, and 229 days hunting on both private and public lands. In contrast, hunters pursuing bears outside the study area hunted 2,710 days on private lands, 2,570 days on public lands, and 880 days hunting on both private and public lands.

Of the estimated 449 bear harvested in the Red Oak BMU in 2008, 54% of these bears (244) were taken on private land (Table 5). About 46% of the bears (205) were taken on public land. About 80% of the bears taken within the study area and 45% of the bears taken outside the study area were taken on private lands, which was significantly different.

Nearly 27% of hunters harvested a bear in the Red Oak BMU (Table 1), and success did not vary significantly inside and outside the study area. About 50% of bears taken in the Red Oak BMU were harvested during the first two days of the hunting season (Figures 4 and 5). Only about 6% of the harvested bear were taken in the archery only season (October 5-11). About 62% of the bears taken in the Red Oak BMU were males (279) and 36% were females (162; Table 6). Sex of harvested bears did not vary significantly inside and outside the study area.

Most hunters in the Red Oak BMU (65%) used only firearms while hunting bear (Table 7). The proportion of hunters using firearm did not vary significantly inside and outside the study area. Most hunters in the Red Oak BMU (83%) used a firearm to harvest their bear (Table 8). A higher proportion of the bear taken in the study area were harvested with a firearm than outside the study area (93% versus 80%). Most hunters in the Red Oak BMU (88%) relied primarily on baiting as a means of locating and attracting bears (Table 9). A slightly higher proportion of the bear hunters in the study area relied on bait to attract bears than hunters outside the study area (93% versus 86%).

About 82% of the harvested bears in the Red Oak BMU were taken with the aid of bait only (Table 10). A higher proportion of bear harvested in the study area were taken with the assistance of bait only than the bear harvested outside the study area (91% versus 78%). Hunting success for hunters using bait only in the Red Oak BMU was 25%, while hunting success for hunters using dogs was 48% (Table 11). Hunting success by hunt method was not significantly different inside and outside the study area.

About 46% of hunters in the Red Oak BMU rated their hunting experiences as very good or good and 28% rated their hunting experiences as poor or very poor (Table 12). Fewer hunters inside the study area rated their hunting experience as poor or very poor than among hunters outside the study area (19% versus 29%).

Hunter satisfaction is affected by many factors such as hunting success and whether hunting activities were completed without interference. Nearly 31% of the hunters in the Red Oak

BMU were interfered with by other hunters. Most of this interference was caused by another bear hunter; 24% of the hunters reported that other bear hunters interfered with their hunt. Hunters in the study area experienced less interference from hunters (all types of hunting) than among hunters outside the study area (23% versus 34%). Furthermore, fewer hunters in the study area experienced interference with another bear hunter than among hunters outside the study area (17% versus 27%).

DISCUSSION

The differences between many estimates for the study area and the remainder of the Red Oak BMU likely reflect differences in land ownership patterns. About 95% of the study area was privately owned, while 65% of the area outside the study area was private lands. Thus, a greater proportion of hunters used private lands and took bears on private lands in the study area because these hunters were more dependent on private lands for hunting than hunters outside the study area. In addition, interference among hunters was less frequent in the study area because landowners likely limited hunter numbers on their properties.

ACKNOWLEDGEMENTS

I thank all the bear hunters that provided information. Autumn Feldpausch, Theresa Riebow, and Becky Walker completed data entry. The figure of bear management units and the area open to hunting was prepared by Marshall Strong. Mike Bailey, Adam Bump, Dwayne Etter, Pat Lederle, Russ Mason, Cheryl Nelson, and Doug Reeves reviewed a previous version of this report.

LITERATURE CITED

- Cochran, W. G. 1977. Sampling techniques. John Wiley & Sons, New York. USA.
- Frawley, B. J. 2009. 2008 Michigan black bear hunter survey. Wildlife Division Report 3501. Michigan Department of Natural Resources, Lansing. USA.
- Payton, M. E., M. H. Greenstone, and N. Schenker. 2003. Overlapping confidence intervals or standard error intervals: what do they mean in terms of statistical significance? Journal of Insect Science 3:34.



Figure 1. Bear management units open to hunting in Michigan, 2008.

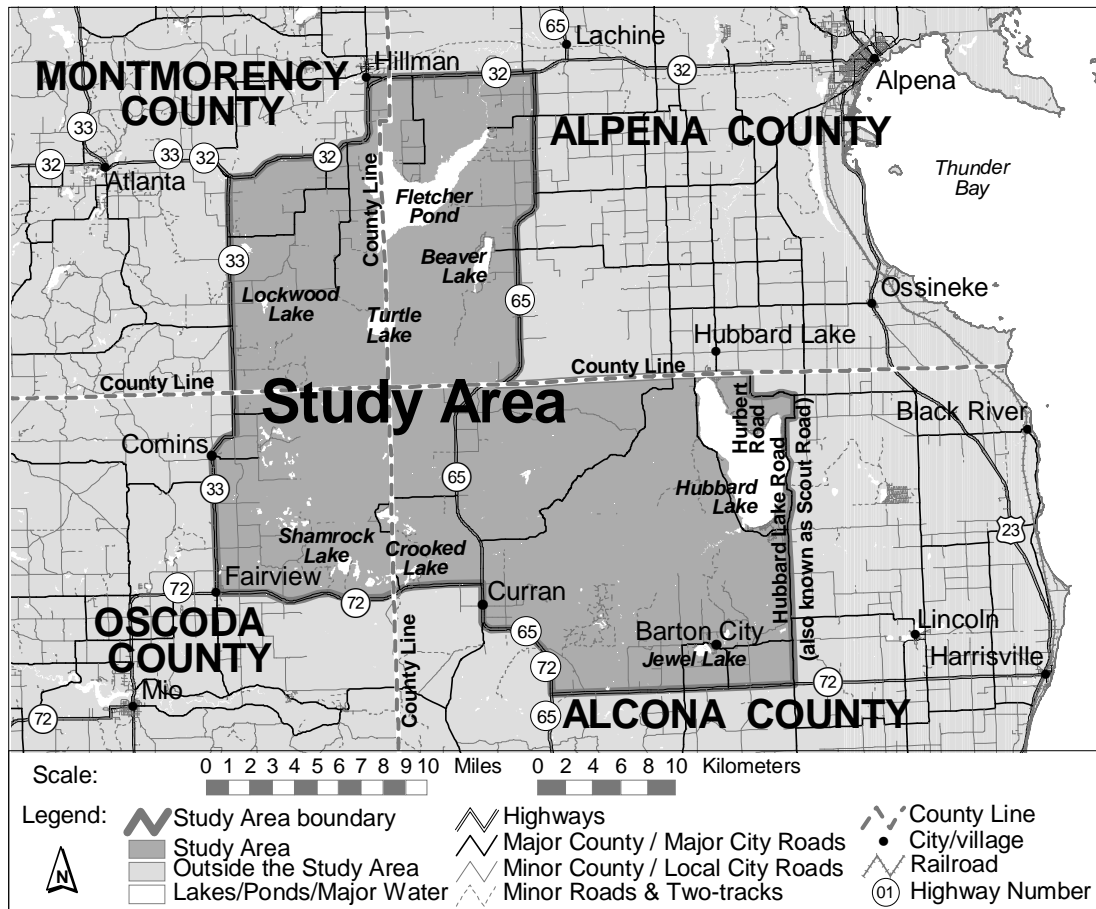


Figure 2. Study area (shaded) within the Red Oak BMU in Michigan.

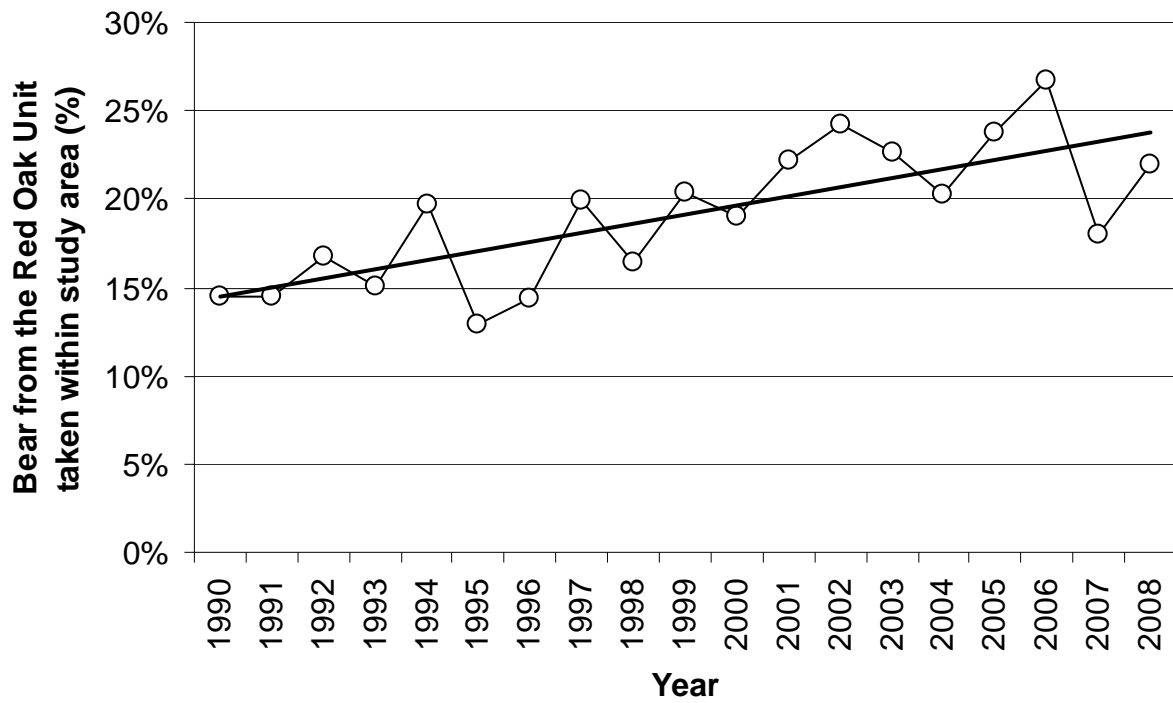


Figure 3. Proportion of bear taken in the Red Oak Bear Management Unit originating from the study area.

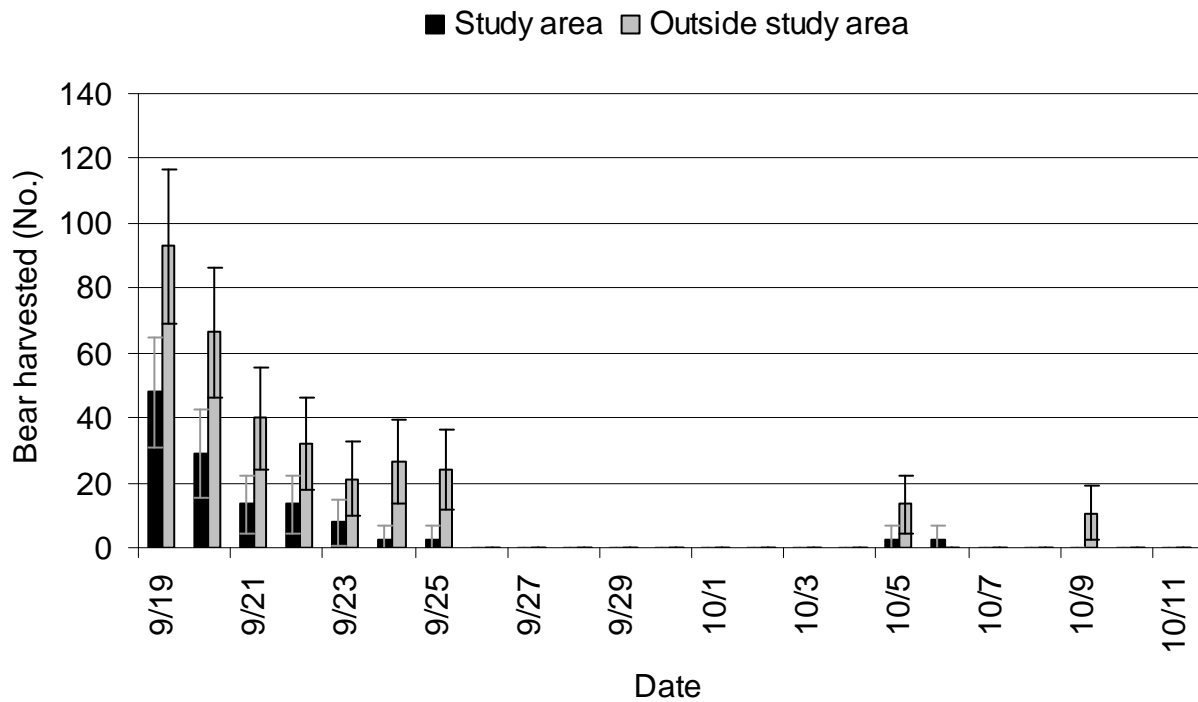


Figure 4. Estimated number of bear harvested in the Red Oak BMU by date during the 2008 bear hunting season (September 19-25 and October 5-11). Estimates presented separately for harvest within and outside the study area.

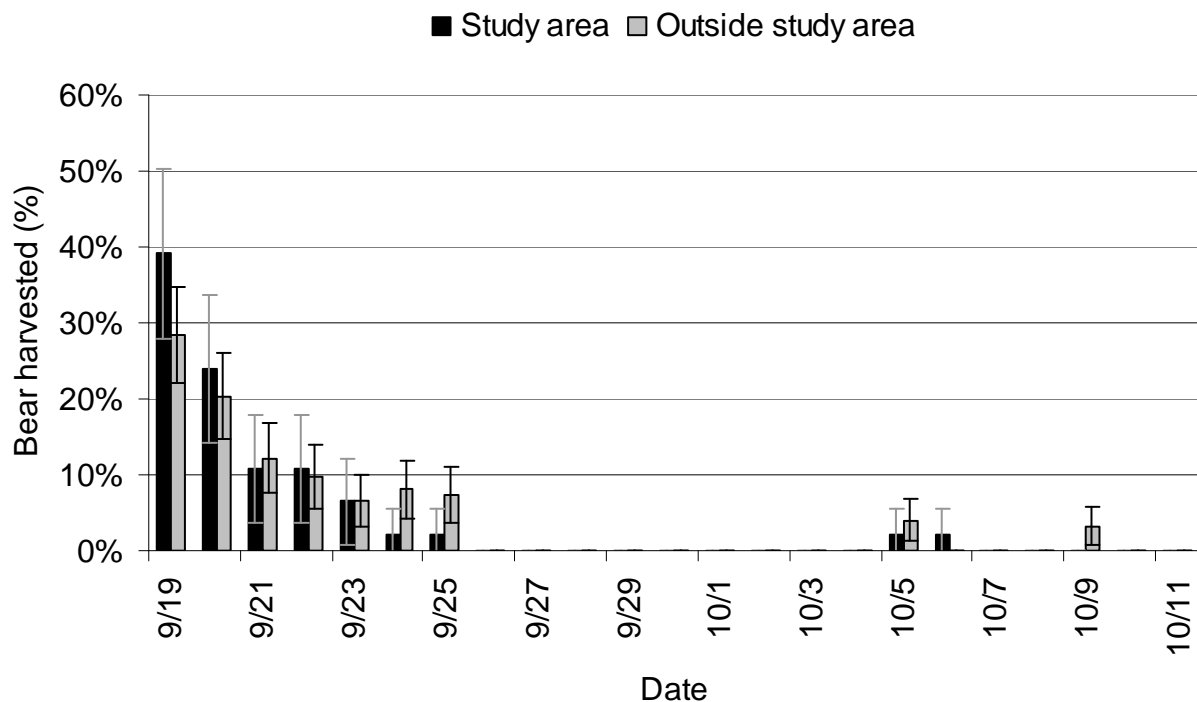


Figure 5. Estimated proportion of bear harvested in the Red Oak BMU by date during the 2008 bear hunting season (September 19-25 and October 5-11). Estimates presented separately for harvest within and outside the study area.

Table 1. Estimated number of hunters, harvest, hunter success, hunting effort, mean days hunted, and mean effort per harvested bear during the 2008 Michigan bear hunting season in the Red Oak BMU.

Area	Hunters		Harvest		Hunter success		Hunting effort		Days hunted per hunter (\bar{x})		Days hunted per harvested bear (\bar{x})	
	No.	95% CL ^a	No.	95% CL ^a	%	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a
Inside study area	433	46	122	27	28	5	1,788	246	4.1	0.4	14.6	4.3
Outside study area	1,265	48	327	41	26	3	6,210	393	4.9	0.2	19.0	2.5
Red Oak BMU ^b	1,663	27	449	46	27	3	7,998	388	4.8	0.2	17.8	2.2

^a95% confidence limits.

^bArea inside and outside study area combined. Number of hunters does not add up to total in Red Oak BMU because hunters could hunt both inside and outside study area.

Table 2. Estimated number of hunters, harvest, hunter success, hunting effort, mean days hunted, and mean effort per harvested bear during the 2008 Michigan bear hunting season in the Red Oak BMU. Estimates summarized separately for two independent surveys (statewide bear harvest survey and this survey).

Date survey initiated	Hunters		Harvest		Hunter success		Hunting effort		Days hunted per hunter (\bar{x})		Days hunted per harvested bear (\bar{x})	
	No.	95% CL ^a	No.	95% CL ^a	%	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a	Days	95% CL ^a
November 2008 ^b	1,692	25	479	47	28%	3%	8,175	373	4.8	0.2	17.1	2.3
July 2009 ^c	1,663	27	449	46	27%	3%	7,998	388	4.8	0.2	17.8	2.2

^a95% confidence limits.

^bEstimates from the 2008 statewide bear harvest survey (Frawley 2009).

^cEstimates duplicated from Table 1.

Table 3. Estimated number and proportion of hunters hunting on private and public lands during the 2008 bear hunting season.

Management unit	Land type															
	Private land only				Public land only				Both private and public lands				Unknown land			
	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL
Inside study area	327	41	75	5	45	17	10	4	48	17	11	4	13	9	3	2
Outside study area	563	50	45	4	489	48	39	3	199	34	16	3	13	9	1	1
Red Oak BMU ^a	869	53	52	3	513	48	31	3	255	37	15	2	27	13	2	1

^aArea inside and outside study area combined. Number of hunters does not add up to total in Red Oak BMU because hunters could hunt both inside and outside study area.

Table 4. Estimated number of days of hunting effort on private and public lands during the 2008 Michigan bear hunting season.

Management unit	Land type							
	Private lands		Public lands		Both private and public lands		Unknown	
	Total	95% CL	Total	95% CL	Total	95% CL	Total	95% CL
Inside study area	1,350	212	191	80	229	111	19	25
Outside study area	2,710	295	2,570	309	880	195	50	59
Red Oak BMU ^a	4,060	332	2,761	318	1,108	225	69	64

^a Area inside and outside study area combined. Column totals may not equal management unit totals because of rounding errors.

Table 5. Estimated bear harvest in Red Oak BMU on private and public lands during the 2008 bear hunting season, summarized by area.

Ownership	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Private	80	9	98	24	45	7	146	29	54	6	244	37
Public	20	9	24	12	55	7	181	32	46	6	205	34

Table 6. Sex of bears harvested in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Ownership	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Male	65	11	80	22	61	7	199	34	62	6	279	39
Female	35	11	43	16	37	7	120	27	36	6	162	31
Unknown	0	0	0	0	2	2	8	7	2	2	8	7

Table 7. Weapon used to hunt bear in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Weapon	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Firearm	69	6	298	40	62	3	789	53	65	3	1,074	52
Archery	12	4	50	18	16	3	197	33	15	2	242	37
Both	20	5	85	23	22	3	274	38	21	3	343	42
Unknown	0	0	0	0	0	0	5	6	0.3	0.3	5	6

Table 8. Weapon used to harvest bear in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Weapon used to harvest bear	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Firearm	93	6	114	26	80	6	260	38	83	4	375	43
Archery	7	6	8	7	20	6	66	20	17	4	74	21

Table 9. Hunting methods used to locate and attract bears in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Primary hunt method	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Bait only	93	3	401	45	86	2	1,087	52	88	2	1,464	41
Dogs only	2	2	8	7	6	2	80	22	5	1	85	23
Dogs & bait	2	2	8	7	5	2	69	21	4	1	69	21
Other	3	2	13	9	1	1	19	11	2	1	32	14
Unknown	1	1	3	4	1	1	11	8	1	1	13	9

Table 10. Hunting methods used to harvest bears in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Hunt method when bear harvested	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Bait only	91	6	112	26	78	6	255	37	82	5	367	43
Dogs only	7	6	8	7	11	4	35	15	9	3	43	16
Dogs & bait	2	3	3	4	9	4	29	14	7	3	32	14
Other	0	0	0	0	2	2	5	6	1	1	5	6
Unknown	0	0	0	0	1	1	3	4	1	1	3	4

Table 11. Bear hunter success in the Red Oak BMU, summarized by primary hunting method used and area hunted.

Hunt method	Area					
	Study area		Outside study area		Red Oak BMU	
	%	95% CL ^d	%	95% CL ^d	%	95% CL ^d
Bait only	28	6	23	3	25	3
Dogs only	67	42	50	14	50	14
Dogs & bait	33	42	46	15	46	15
Other	0	0	0	0	0	0
Dogs ^a	50	32	48	10	48	10

^aCombined hunters using dogs only and hunters using dogs and bait.

Table 12. Proportion of bear hunters satisfied with their bear hunting experience and proportion of hunters interfered by other hunters in the Red Oak BMU during the 2008 bear hunting season, summarized by area.

Hunters response	Area											
	Study area				Outside study area				Red Oak BMU			
	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL	%	95% CL	Total	95% CL
Very good or good hunt rating	50	6	215	35	45	4	574	50	46	3	765	53
Poor or very poor hunt rating	19	5	109	26	29	3	367	43	28	3	473	47
Interfered by another hunter	23	5	101	25	34	3	433	46	31	3	521	48
Interfered by another bear hunter	17	5	72	21	27	3	345	42	24	3	404	45

Appendix A

2008 Michigan Bear Harvest Questionnaire for the Red Oak BMU



MICHIGAN DEPARTMENT OF NATURAL RESOURCES – WILDLIFE
PO BOX 30030 LANSING MI 48909-7530

2008 MICHIGAN BEAR HARVEST REPORT

This information is requested under authority of Part 435, 1994 PA 451, M.C.L. 324.43539.



It is important that you answer these questions even if you did not hunt or harvest a bear. You were selected to receive this survey because you purchased a 2008 bear hunting license valid for the Red Oak Management Unit in the northern Lower Peninsula.

1. Did you hunt bear in the Red Oak Management Unit during the 2008 season?

¹ ☐ Yes ² ☐ No; (If you select "No", you are finished. Please return the survey.)

2. Did you hunt bear using a firearm, a bow, or with both during the 2008 bear season?
(please check all that apply)

¹ ☐ Firearm ² ☐ Bow ³ ☐ Both

3. What hunting method did you most often use when hunting bear during the 2008 bear season? (please select only one item)

¹ ☐ Hunted over bait only ² ☐ Used dogs only (bait not used)
³ ☐ Used dogs started over bait ⁴ ☐ Used other methods not involving dogs or bait

4. Did you take a bear and put your kill tag on the bear? (If no, please skip to question 6)

¹ ☐ Yes ² ☐ No

5. If your harvest tag was put on a bear, please fill in the information below

a. What date was the bear harvested?

(please check [X] the box for the date of harvest)

September 2008						
S	M	T	W	T	F	S
					19	20
21	22	23	24	25		

October 2008						
S	M	T	W	T	F	S
5	6	7	8	9	10	11

b. What was the sex of the bear?

¹ ☐ Male

² ☐ Female

³ ☐ Not sure

c. In what county was it harvested? (please write in the county name)

d. On what type of land was the bear harvested?

¹ ☐ Private

² ☐ Public

e. What type of weapon was used to harvest bear?

¹ ☐ Firearm

² ☐ Bow

f. What was the method of harvest?

¹ ☐ Taken over bait

² ☐ Used dogs only (bait not used)

³ ☐ Used dogs started over bait

⁴ ☐ Used other methods not involving dogs or bait

6. Did other hunters interfere with your bear hunting?

¹ ☐ Yes

² ☐ No (skip to question 8)

7. If you answered "yes" to the previous question, was the interference caused by other bear hunters?

¹ ☐ Yes

² ☐ No

8. How would you rate the following for your 2008 bear hunting season:

(Select one choice per item.)

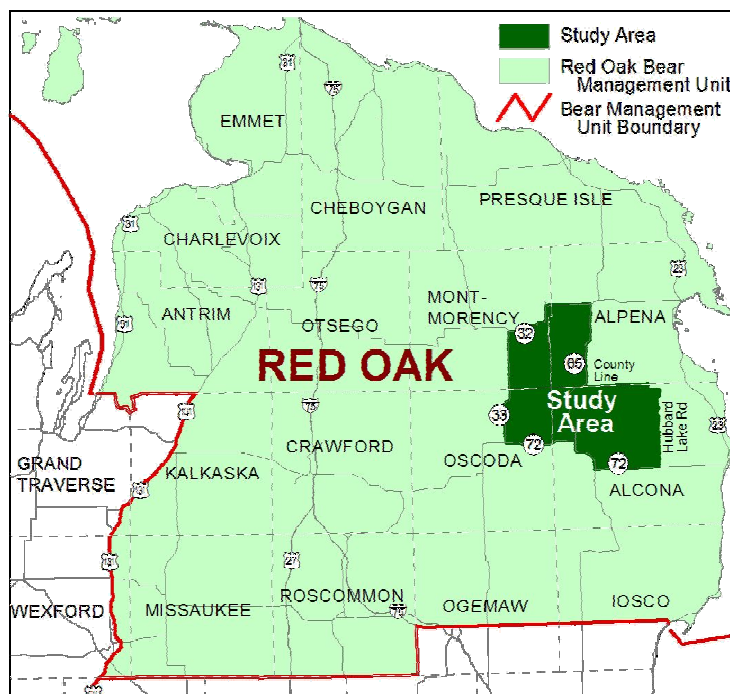
a. Number of bear you saw.

	Very Good	Good	Neutral	Poor	Very Poor	Not Applicable
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	

b. Number of opportunities you had to take a bear.

c. Your overall bear hunting experience.

For the next three questions, we want to find out how often you may have hunted bear inside the study area that we have drawn on the figure. This study area includes parts of Alcona, Alpena, Montmorency, and Oscoda counties.



9. Did you hunt bear inside the study area outlined on the map during the 2008 season?

- ¹ ☐ Yes ² ☐ No; skip to question 12.

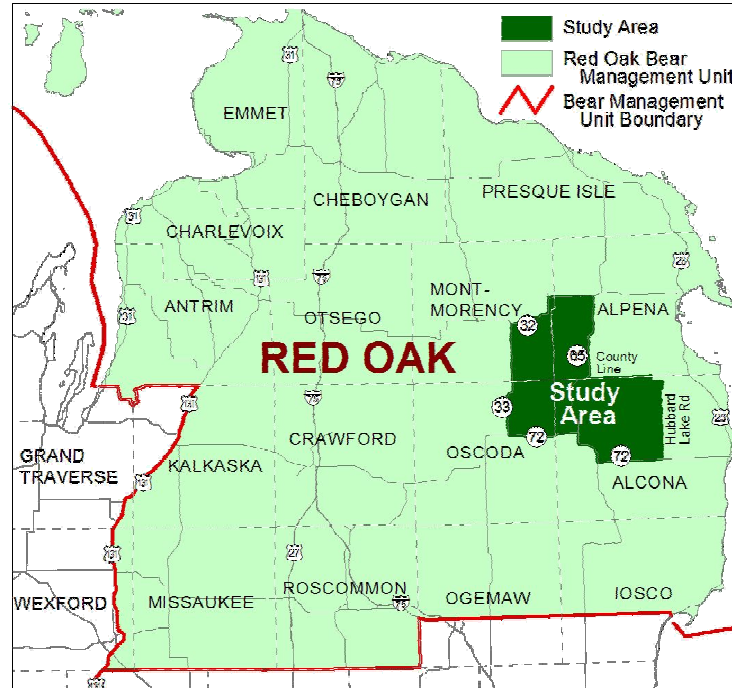
10. If you hunted inside this study area, please report the number of days for each county that you hunted bear in the following table.

COUNTY HUNTED (List each county that you hunted for bear inside the study area)	NUMBER OF DAYS HUNTED	TYPE OF LAND
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private ² <input type="checkbox"/> Public ³ <input type="checkbox"/> Both

11. Did you harvest a bear inside the study area outlined on the figure?

- ¹ ☐ Yes ² ☐ No

For the final two questions, we want to find out how often you may have hunted bear outside the study area that we have drawn on the figure.



12. Did you hunt bear outside the study area shown on the figure during the 2008 season?

- ¹ ☐ Yes ² ☐ No; skip the final question if you did not hunt outside study area.

13. If you hunted outside of the study area outlined on the figure, please report the number of days for each county that you hunted bear in the following table.

COUNTY HUNTED (List each county that you hunted for bear <i>outside</i> the study area)	NUMBER OF DAYS HUNTED	TYPE OF LAND		
		¹ <input type="checkbox"/> Private	² <input type="checkbox"/> Public	³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private	² <input type="checkbox"/> Public	³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private	² <input type="checkbox"/> Public	³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private	² <input type="checkbox"/> Public	³ <input type="checkbox"/> Both
		¹ <input type="checkbox"/> Private	² <input type="checkbox"/> Public	³ <input type="checkbox"/> Both

*Please return questionnaire in the enclosed postage-paid envelope.
Thank you for your help!*

GREAT LAKES, GREAT TIMES, GREAT OUTDOORS
www.michigan.gov/dnr